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BELL, BOYD & LLOYD, LLC
P. O. BOX 1135
CHICAGO, IL 60690-1135

EXAMINER
TRAN, THAI Q

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 23

Application Number: 08/883,322
Filing Date: June 26, 1997
Appellant(s): SHIMIZU, RYOICHI

Jeffrey H. Canfield
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 05, 2002.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The rejection of claims 1-14 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6,104,858	SUZUKI	8/15/2000

5,229,890 OKAUCHI 7/20/1993

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki ('858) in view of Okauchi ('890).

Regarding claim 1, Suzuki discloses a video tape recorder (Fig. 5 and Fig. 17) capable of performing signal recording and reproducing process at a plurality of different frame rates having means (column 7, lines 9-42 and column 17, lines 6-9) for recording an input image signal at a selected recording frame rate. However, Suzuki does not specifically discloses means for recording a first time code stepped in a non-drop frame format and a second time code stepped in a drop frame format together with the selected recording frame rate.

Okauchi teaches a data recording system for use in a video tape recorder having means (column 5, lines 8-66) for recording a first time code stepped in a non-drop frame format and a second time code stepped in a drop frame format together with the selected recording frame rate so that the time code in recording is coincidence with the real time according to the CTL coding system.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the time code recorder as taught by Okauchi into Suzuki's system in order to coincide the real time and the time code in recording according to the CTL coding system.

Regarding claim 2, the combination of Suzuki and Okauchi teaches that the input image signal is recorded as a component digital image signal on a recording medium (column 11, lines 4-57 of Suzuki), and the time code stepped in the non-drop frame format, the time code stepped in the drop frame format, and the recording frame rate are each respectively recorded in an auxiliary area of the signal recording area on the recording medium (column 5, lines 8-66 of Okauchi and column 11, lines 40-48 of Suzuki).

Regarding claim 3, Suzuki discloses that the signal recording area of the recording medium is a video recording area (column 14, lines 30-45).

Regarding claim 4, Suzuki discloses that the signal recording area of the recording medium is audio recording area (column 14, lines 30-45).

Regarding claim 5, the claimed 59.94 Hz is met by the NTSC signal disclosed in column 7, lines 30-42 of Suzuki) and the claimed 60 Hz is met by the MUSSE signal disclosed in column 7, lines 9-16 and column 17, lines 6-9 of Suzuki.

Regarding claim 6, the claimed a frame rate selection circuit for selecting a frame rate from the plurality of frame rates is met by the switch 8 of Suzuki (column 8, line 64 to column 9, line 31 of Suzuki); the claimed a counting method selection circuit for selecting a time code counting method section circuit for

selecting a time code counting method from a plurality of time code counting methods is met by column 5, lines 8-62 of Okauchi; the claimed a first signal generation circuit for outputting a first control signal indicating the selected frame rate s met by switch 8 of Suzuki (column 8, lines 64 to column 9, line 3 of Suzuki); the claimed a second signal generation circuit for outputting a second controlling signal indicating the select time code is met by column 5, lines 8-62 of Okauchi; the claimed a time code generator circuit for generating a plurality of time code counts, one of each of the plurality of time code counting method is met by column 5, lines 8-62 of Okauchi; the claimed a first recording circuit for recording the video signals on the recording medium at the selected frame rate in response to the first controlling signal from the control circuit is met by magnetic heads 1A, 1B, 2A, and 2B of Fig. 5 of Suzuki; the claimed a second recording circuit for recording the plurality of time code counts from the time code generator circuit on the recording medium is met by the magnetic head 8 of Fig. 2 of Okauchi; the claimed a third recording circuit for recording data indicating the selected frame rate on the recording medium is met by column 11, lines 40-48 of Suzuki; and wherein a time code method selection and recording circuit for selecting a time code count from the plurality of time code counts generated by the time code generator circuit, and for recording the selected time code count on the recording medium in response to the second controlling signal from the control circuit is met by column 5, lines 8-66 of Okauchi.

Claim 7 is rejected for the same reasons as discussed in claim 5 above.

Regarding claim 8, the claimed wherein the plurality of time code counting methods include a first time code counting method of the video signal using drop frame stepping and a second time code counting method of the video signal using non-drop frame stepping is met by column 5, lines 8-62 of Okauchi.

Claim 9 is rejected for the same reasons as discussed in claim 2 above.

Claim 10 is rejected for the same reasons as discussed in claim 3 above.

Claim 11 is rejected for the same reasons as discussed in claim 4 above.

Claim 12 is rejected for the same reasons as discussed in claims 1 and 6 above and the additional claimed recording medium processing means for recording the audio and video signal on the recording medium as the selected frame rate based on the first control signal is met by column 14, lines 30-45 of Suzuki and the claimed time code reproducing means for reproducing the selected time code count recorded on the recording medium is met by column 5, line 64 to column 6, line 11 of Okauchi.

Regarding claim 13, Suzuki discloses a video tape recording medium for performing signal recording and reproducing processes at a plurality of frame rates (Fig. 5 and Fig. 17) having the steps of separating the time code information and recording frame rate information according to a reproduced signal (TCI discriminators 50 and 51 of Fig. 17 and column 24, lines 30-55) and selecting a playback frame rate for the reproduced signal and a time code for the selected frame rate (column 18, lines 63-67 and column 24, lines 30-55). However, Suzuki does not specifically discloses a plurality of types of time code

information and the clamed reproduced image information is accessed via real-time units and frame number units.

Okauchi teaches a data recording/reproducing system for use in a video tape recorder having means (column 5, lines 8-66 and column 5, line 63 to column 6, line 21) for recording/reproducing a first time code stepped in a non-drop frame format and a second time code stepped in a drop frame format together with the selected recording frame rate so that the time code in recording is coincidence with the real time according to the CTL coding system and that the video signal is reproduced via real-time units and frame number units (column 1, lines 6-52).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the time code recorder/reproducer as taught by Okauchi into Suzuki's system in order to coincide the real time and the time code in recording according to the CTL coding system.

The method claim 14 is rejected for the same reasons as discussed in apparatus claims 1 and 6 above.

(11) Response to Argument

A. LEGAL STANDARDS FOR DETERMINING OBVIOUSNESS

In re pages 4-6, appellant argues that obviousness cannot be established by combining the teaching of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. ACS Hospital System, Inc. v. Montefiore Hospital, 221 U.S.P.Q.2d 929, 932 (Fed. Cir. 1984).

In response, the examiner respectfully disagrees. Suzuki discloses an apparatus (VTR) for recording and reproducing either a combination of a high-definition video signal and an audio signal or a combination of a normal-definition video signal and an audio into and from a recording medium. The apparatus can record the time code signal generated from the time code signal generator 200 onto the recording medium (col. 10, lines 45-57).

Okauchi teaches that, **in the conventional VTRs for recording NTSC color signal, because a nominal frame number is 29.97 frames per second, the time code substantially becomes difficult to the coincident with the real time and it is an object of the present invention to provide a data recording system for use in VTRs which is capable of coincidence with the real time in recording the time code according to the CTL coding system** (column 1, lines 28-58). **The superior result of coincidence with the real time in recording the time code is all that would be needed to motivate the artisan to combine Suzuki and Okauchi references**.

B. CLAIMS 1-14 ARE NOT OBVIOUS UNDER 35 U.S.C. 103 OVER SUZUKI IN VIEW OF OKAUCHI.

In re pages 6-9, appellant argues that neither Suzuki nor Okauchi, either alone or in combination, teach the features of claim 1, specifically the feature of recording a plurality of time codes simultaneously with the selected frame rate because Okauchi discloses that only one time code, corresponding to the selected time code mode, is recorded together with the selected frame rate on the recording medium, if the user were to operate the manual switch disclosed in

col. 5, lines 9-14 of Okauchi to record both drop-frame and non-drop frame time codes together with the selected recording frame rate, the time code would fluctuate over the course of the recorded video signal, but the frame rate would stay the same, and , finally, claims 1 requires that a plurality of times codes, drop-frame time code and non-drop-frame time code are simultaneously recorded with the selected frame rate because to the word "together" of claim 1.

In response, the examiner respectfully disagrees. First at all, page 10, lines 3-11 of the specification describes **that the selector 14 selects either drop frame time code (DF) or non-drop frame time code (NDF) to be recorded on the recording medium**. **The selector 14 disclosed in page 10, lines 3-11 of the specification allows only one type of time code corresponding to the selected time code mode is recorded at any given time**. Additionally, page 10, lines 19-21 of the specification states that "a longitudinally-extending time code track 106 on which time codes are recorded by **a fixed head**, is provided on the lower edge side of the magnetic tape 104". **The single fixed head can only record one type of time code at any given time**. The specification discloses the first time code and the second time code being **sequentially recorded together with the selected recording frame rate** but **does not disclose** both time codes being recorded **simultaneously** with the selected recording frame rate. It is agreed that "**together**" can be defined as "at one time: **SIMULTANEOUSLY**"; however, claim 1 requires either the drop-frame time code or non-drop-frame time code **being simultaneously recorded** with the selected recording frame rate but not both. Thus, the feature "means for

recording a first time code stepped in a non-drop frame format **and** a second time code stepped in a drop frame format **together** with the selected recording frame rate" in claim 1 is being interpreted, according with the specification, as non-drop frame and drop-frame time codes being **sequentially recorded** together with the selected recording frame rate.

As discussed in the Final Office Action, Okauchi discloses in col. 3, lines 4-60 that "A data recording system for use in VTRs according to a first embodiment ... **In the case of NTSC, since the accurate frame number is 29.97 frame per second, the frame number due to counting the CTL pulses deviates with respect to the real time. This deviation results in 108 frames (3.6 seconds) per hour and hence provides an important problem if working for a long time. The correction of this deviation can be effected with 108 bits being reduced from the number of the dummy bits per hour (10 bitsX60X60/2=18000). More specifically, the number of the dummy bits in the time code having the data representing every minute on the minute (00 second) except for every 10 minutes (i.e., 0, 10, 20, 30, 40 and 50 minutes) is reduced by 2 bits so as to become 8 bits, that is, (60-2)X2 bits=108 bits...Of these 8 or 10 dummy bits, the initial bit is for distinguishing between a correction mode or a non-correction mode. When the initial bit is "0", the non-correction mode (non-drop frame mode) is taken so as not to perform the time deviation correction. When the initial bit is "1", the correction mode (drop frame mode) is performed so that the number of the dummy bits is determined to be 8 (including the initial bit) at every minute**

on the 20 minute (00 second) except for every 10 minutes (0, 10, 20, 30, 40 and 50 minutes)..." From the above passage, it is clear that, for the selected frame rate (NTSC, 29.97 frames per second), two types of time codes (non-drop frame mode, 10 dummy bits, and drop frame mode, 8 dummy bits) are sequentially recorded together with the selected frame rate on the video tape as required by claim 1.

Even if, arguendo, that col. 3, lines 4-60 of Okauchi does not specifically disclose the capability of recording both drop-frame and non-drop-frame time codes along with the selected recording frame rate, the user can operate the manual switch disclosed in col. 5, lines 9-14 of Okauchi to record both drop-frame and non-drop-frame coded pulses together with the selected recording frame rate. When using the manual switch to record both types of time codes, the **time code would not fluctuate over the course of the recorded video signal by alleged by appellant because dummy bits (10bits) are added to time code to achieve the time coincidence with the real time to correct the fluctuation of the time code (col. 3, lines 12-14)**. Additionally, if the time code fluctuates over the course of the recorded video signal as alleged by the appellant, the manual switch disclosed in col. 5, lines 9-14 of Okauchi **would not be there**.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

TTQ
September 20, 2002

THAI TRAN
PRIMARY EXAMINER

Conferees

ROBERT CHEVALIER
PRIMARY EXAMINER

ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

BELL, BOYD & LLOYD, LLC
P. O. BOX 1135
CHICAGO, IL 60690-1135